

Southern Pine Beetle



Tennessee Department of Agriculture, Division of Forestry

Southern pine beetle (SPB) is a serious pest of yellow pines, including loblolly, shortleaf and Virginia pines.

SPB adults lay eggs under the bark. Larvae hatch and eat the inner bark, thus cutting off the supply of nutrients to the roots. These beetles also bring with them blue stain fungus that plugs the tree's water conducting tissues. Once several SPB have attacked a tree, it cannot be saved.

When SPB adults emerge, they fly to a nearby tree and lay eggs. Adults are attracted to weak, stressed trees.

SPB attacks the central portion of the trunk, usually between heights of 10 and 40 feet. Trees shorter than 10 feet are generally not attacked.

Trees are most susceptible when they are weak from drought, crowding, injury, old age and attacks by other pests.

A SPB is about the size of an uncooked grain of rice (1/8"). The interwoven "S"-shaped pattern of trails left by the larvae on the inside of the bark are distinctive.

Symptoms in order of appearance:

- ✓ Small amounts of powdery residue in bark crevices, spider webs, etc.
- ✓ Blobs of pitch the size of popcorn
- ✓ Yellowing foliage that turns red, then brown
- ✓ Loose bark with distinctive sinuous feeding tracks of the larvae

Time is of the essence when infestations are spotted. There are two methods of dealing with SPB: cut-and-leave, and salvage.

For cut-and-leave, fell all trees showing any symptoms toward the middle of the infested area. Also fell any healthy trees that are within at least one tree length of the spreading side(s) of the spot. Leave tops on trees to draw water out and thus inhibit larvae from developing.

Salvaging timber in an epidemic may be problematic since markets could be flooded with pine.

If multiple spots are involved, place the highest priorities on spots having the greatest

1. Number of freshly attacked trees
2. Density (basal area) of stand
3. Size of trees

Check spots after a couple of weeks to make sure they are not spreading.

To prevent attacks, maintain a healthy forest.

- ☐ Thin crowded stands
- ☐ Remove weak and diseased trees
- ☐ Harvest and regenerate mature and over-mature stands
- ☐ Minimize soil compaction during logging
- ☐ Maintain habitat for predators of the SPB, especially woodpeckers.

Permethrin is the only pesticide labeled for treating yard trees for SPB, but it must be applied often and is not highly effective. Prevention is the only realistic alternative: mulch, water and fertilize trees to maintain vigor.

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